IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: DONOVAN) Examiner: Bridget Bunner

Serial Number: 09/371,354) Art Unit: 1647

Filed: August 10, 1999

For: METHOD FOR TREATING CARDIAC MUSCLE DISORDERS

#9
MGJ
12/14/01

DECLARATION UNDER 37 C.F.R. SECTION 1.132

I, JOHN C. LONGHURST, declare as follows:

1. I am over the age of twenty one, competent to testify in a court of law, and could and would testify to the matters set forth below before the United States Patent and Trademark Office, if required to do so.

2. I understand that this declaration will be used to assist prosecution of United States patent application serial number 09/371,354 (or a continuation or continuation in part of that patent application), including to assist to overcome a rejection in the July 5, 2001 office action in serial number 09/371,354.

3. I graduated from the University of California, Davis in 1969 with a bachelor of science degree in zoology (honors) and in 1973 I received an M.D. degree from the University of California, Davis. In 1974 I received a Ph.D from the University of California, Davis in cardiovascular-pulmonary physiology where I was also a post doctoral fellow in cardiology. In 1978 I completed a two year post doctoral fellowship (NIH) in cardiology at the University of Texas Health Science center at Dallas, Texas. I am currently a professor of medicine and chief of the division of cardiology at the University of California, Irvine, California, where I am also a professor in the departments of physiology, biophysics and pharmacology. I also hold the position of professor in the Center for Biomedical Engineering at the University of California, Irvine, California.

4. I am a Board certified physician in internal medicine as well as in cardiovascular disease. I hold many appointments and affiliations, sit on the editorial boards of a

number of peer reviewed medical journals, have received numerous grants and awards to conduct research into various aspects of cardiovascular disease, and I have published extensively in the field of cardiology. Attached as Attachment A is a list of my publications.

5. By training and experience I am an expert in the field of cardiovascular medicine, including treatment of cardiac disorders such as bradycardia.

6. I have carefully and thoroughly read U.S. patent application serial number 09/371,354. In my opinion this patent application provides sufficient disclosure and teaching so that a cardiologist of ordinary skill can successfully treat bradycardia by administration of a botulinum toxin into an existing pericardial space of a human patient (i.e. in the presence of a pericardial effusion of sufficient magnitude to allow access to the pericardial space) to thereby increase the heart rate of a patient with symptomatic bradycardia.

7. Additionally, in my opinion matters such as the specific time period in which the toxin should be administered or for how long, and the specific dosage of the botulinum toxin to use entail consideration of factors such as the patient's size, weight, age, and disease severity which factors are routine considerations determined on a patient by patient basis by a cardiologist of ordinary skill who has knowledge of the therapeutic use of a botulinum toxin.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that any such willful false statements may jeopardize the validity of the above-identified application or any patent issuing therefrom.

Executed this 5 day of November, 2001, at Irvine, California.

John C. Longhurst

CURRICULUM VITAE

JOHN CHARLES LONGHURST, M.D., Ph.D.

DATE AND PLACE OF BIRTH:	March 18, 1947, Napa, California
NATIONALITY:	Citizen, U.S.A.
MARITAL STATUS:	Married, three children
SOCIAL SECURITY NO.:	553-64-3880
ADDRESS:	Department of Medicine University of California Irvine Med. Sci. 1, Room C240 Irvine, CA 92697

EDUCATION:

1965 - 1966	University of California, Davis Major: Zoology
1966 - 1967	University College, Nairobi, Kenya, East Africa Majors: Zoology, Botany and Geography
1967 - 1969	University of California, Davis B.S. in Zoology with Honors, March, 1969
1969 - 1973	University of California, Davis, School of Medicine M.D., June, 1973
1969 - 1974	University of California, Davis Graduate Group in Physiology Ph.D. in Cardiovascular-Pulmonary Physiology, June, 1974

POSITIONS:

1967 - 1974	Laboratory Assistant for Barry Wilson, Ph.D., Department of Avian Science, University of California, Davis
1970	Laboratory Technician for Lawrence Rabinowitz, Ph.D., Department of Human Physiology, University of California, Davis
1973 - 1974	Post-doctoral Research Fellow, Division of Cardiology, Department of Internal Medicine, School of Medicine, University of California, Davis on a Giannini Foundation Fellowship
1974 - 1975	Internship in Internal Medicine Peter Bent Brigham Hospital, Boston, Massachusetts
1975 - 1976	Junior Assistant Resident in Internal Medicine Peter Bent Brigham Hospital, Boston, Massachusetts
1976 - 1978	Post-doctoral Fellowship (NIH) in Cardiology University of Texas Health Science Center at Dallas

ATTACHMENT A

FACULTY APPOINTMENTS:

1978 - 1979	Faculty Associate in Internal Medicine University of Texas Health Science Center at Dallas
1979 - 1980	Instructor in Internal Medicine and Physiology University of Texas Health Science Center at Dallas
1980 - 1982	Assistant Professor of Internal Medicine and Physiology University of Texas Health Science Center at Dallas
1982 - 1987	Associate Professor of Medicine University of California, San Diego
1987 - 1998	Professor of Medicine and Human Physiology Chief, Division of Cardiovascular Medicine University of California, Davis
1998 - Present	Professor of Medicine Chair, Department of Medicine University of California, Irvine
1999 - Present	Professor, Departments of Physiology and Biophysics Department of Pharmacology College of Medicine University of California, Irvine
2001 - Present	Professor, Center for Biomedical Engineering The Henry Samueli School of Engineering University of California, Irvine

BOARD CERTIFICATION: Diplomate, American Board of Internal Medicine, 1977
Diplomate, Subspecialty of Cardiovascular Disease, 1979

LICENSES AND SPECIALTY PERMITS: Fluoroscopy X-ray Supervisor and Operator: California 1990 - present.
State Licensure: California #G49035, 1982 - present

HONORS AND AWARDS:

1969	Bachelor of Science in Zoology with Honors
1972 - 1973	U.S. Public Service Predoctoral Traineeship
1973	Loren D. Carlson Medical Student Research Award
1973 - 1974	Giannini Foundation Fellowship Award
1974	Loren D. Carlson Graduate Physiology Research Prize
1978 - 1981	NIH-NHLBI Young Investigator Research Award
1981 - 1986	Established Investigatorship, American Heart Association
1981	Teaching and Clinical Contribution Award, University of Texas Health Science Center at Dallas
1982	Councilor, Southern Section of the American Federation for Clinical Research
1983	First alumnus recipient, Alpha Omega Alpha, National Medical Honor Society, University of California, Davis
1984	Theodore Tagstad Award, Santa Barbara County Chapter, American Heart Association
1990	Distinguished Alumnus Award, University of California, Davis, School of Medicine
1993	Physician Volunteer of the Year Award, American Heart Association, California Affiliate

PROFESSIONAL SOCIETIES:

American College of Cardiology, Fellow
American College of Physicians, Fellow
American College of Sports Medicine, Member
American Federation for Medical Research
American Heart Association, Council on Basic Science
American Heart Association, Council on Circulation
American Heart Association, Council on Clinical Cardiology
American Physiological Society, Cardiovascular Section, Fellow
American Society for Clinical Investigation
Western Society for Clinical Investigation
Alpha Omega Alpha Honor Medical Society
Western Association of Physicians, Member
Society for Neuroscience

INSTITUTIONAL SERVICE:

University of California, Davis

1988 - 1995	Physiology Graduate Group Steering Committee, University of California, Davis; Vice Chair 1992; Recruitment Committee - 1989-1990; Chair membership Committee, 1993-1995
1988 - 1990	Advisory Committee for Multicellular Systems/Organismal Biology, Cardiovascular and Pulmonary Biology Subcommittee, University of California, Davis - Member
1992	Search Committee for Dean, School of Medicine - Member
1996 - 1998	Future Directions in Graduate Education Task Force - Member

School of Medicine, Davis

1988 - 1990	Cardiac Surgery Programmatic Subcommittee, University of California Davis Medical Center - Ex-officio Member
1990 - 1995	Faculty and Professional Affairs Committee of the School of Medicine University of California, Davis; Chairman 1992-93, 1993-94 and 1994-95
1992	Search Committee for Chair, Department of Gastroenterology - Member
1992	Faculty Incentive Committee - Member
1992 - 1998	UCDMC Heart Center Steering Committee, Long Range Planning Committee and Chest Pain/ER Task Force (1992-1993) - Member
1993 - 1998	M.D. - Ph.D. Advisory and Medical Scholars Committee - Chair (1993-1995)
1994 - 1996	Research Affairs Committee - Chair
1994 - 1995	Strategic Planning Committee on Research, Work Group on Integration of Basic Research, Clinical Research and Patient Care - Chair
1996 - 1998	LCME Accreditation Committee - Member
1997	Research Resource Allocation committee - Chair
1997	Search Committee for Chair, Department of Pediatrics - Member
1997	LCME Sub-Committee on Basic Sciences - Member

Department of Internal Medicine, Davis

1988 - 1989	Search Committee for Chief, Division of Pulmonary Medicine and Critical Care, University of California Davis Medical Center - Chair
1990 - 1998	Financial Advisory Committee - Member
1993 - 1998	Internship Selection Committee - Member
1993 - 1994	Clinical Series Subcommittee - Member
1994 - 1996	Residency Clinical Competency Committee - Member

Division of Cardiovascular Medicine, Davis

1987 - 1998	Program Director, Current Concepts in Cardiology, sponsored by University of California, Davis Office of Continuing Medical Education and American College of Cardiology
1987 - 1998	Fellowship Interview Committee – Member

University of California, Irvine

1998 - 1999	Cost Reduction Committee - Member
1998 - 1999	Complementary Medicine Committee - Member
1998 - 2001	Health System Steering Committee - Member
1998 - 2001	Clinical Relationships Implementation Committee - Member
1998 - 2000	Clinical Development Sub-Committee - Member
1998 - 2001	Council of Clinical Chairs - Member
1998 - 2001	Dean's Advisory Board - Member
1998 - 2001	Research Advisory Group - Member
1999 - 2000	Susan Samueli Center for Complementary and Alternative Medicine- Co-Director
2000	Search Committee for Director (CEO) of University of California Irvine, Medical Center
2000	Search Committee for Chief Information Officer of University of California Irvine Health Systems

NATIONAL SERVICE:

1985	NIH, Cardiovascular Renal Study Section - *ad hoc* Member
1986 - 1990	NIH, Clinical Sciences II Study Section - Member
1987	NIH, Program Project Site Visit to University of Washington
1987	NIH, Cardiovascular Pulmonary Study Section - *ad hoc* Member
1987 - 1989	AHA, Executive Committee, Council on Circulation
1987 - 1990	AHA, Executive Committee, Council on Circulation - Member
1989 - 1991	AHA, Executive Committee, Credentials Committee - Chair
1990 - 1995	NIH, Reviewers Reserve
1992	NIH, Program Project Site Visit Committee to University of Iowa
1993	NIH, Experimental and Cardiovascular Sciences Section - *ad hoc* Member
1995 - 1999	NIH, Experimental Cardiovascular Sciences Study Section - Member (1995-1998); Chair (1998 - 1999)
1996	NIH, Program Project Review for Vanderbilt University
1997	NIH, Program Project review for University of Texas, Southwestern
1994, 1997, 1998	VA, *ad hoc* Grant Reviewer
1997 - 2000	ASCI, Institutional Representative
1998 - 1999	AHA - Council on Clinical Cardiology, Credentials Committee - Member
1998 - 1999	NIH, Experimental Cardiovascular Sciences Study Section - Chairperson
1999 - 2001	AHA - National Advocacy Coordinating Committee - Member
2000	NIH Experimental Cardiovascular Sciences Study Section - *ad hoc* Member
2000	NCAM Data Safety and Monitoring Board - *ad hoc Member*
2001	NHLBI -Clinical Cardio Vascular Sciences Study Section - *ad hoc* Member
2001 - 2003	AHA – National Board of Directors

STATE SERVICE:

1986 - 1987	AHA, California Affiliate, Student Research Subcommittee - Member
1987 - 1991	AHA, California Affiliate, North Peer Review Subcommittee - Member; Chairman 1988-1991

1989 - 1993	AHA, California Affiliate, Research Committee - Vice Chairman 1990-91; and Vice President and Chair for Research 1991-1993
1988	AHA, California Affiliate, Coordinator, Student Research Presentations California Affiliate
1989 - 1990	AHA, California Affiliate, Golden Empire Chapter - Research Allocation Committee
1989 - 1993	AHA, California Affiliate, Golden Empire Chapter - Board of Directors
1990 - 1992	AHA, California Affiliate - Public Affairs Committee
1990 - 1997	AHA, California Affiliate - Board of Directors
1990	University of California Tobacco-Related Disease Research Program - Peer Review Committee
1990 - 1995	AHA, California Affiliate - Joint Task Force for Enterprise Planning
1991 - 1998	AHA, California Affiliate - Budget & Finance Committee -Member
1994 - 1995	AHA, California Affiliate Program Committee - Vice Chair (1993 - 1994), Vice President and Chair (1994 - 1996)
1994 - 1996	Board of Directors, East Bay Institute for Research (EBIRE), Veterans Administration, Martinez, CA
1993 - 1994	AHA, California Affiliate - Vice Chair, Program Committee
1994	AHA, California Affiliate - Commission of the Stroke *ad hoc* Task Force
1995 - 1997	AHA, California Affiliate - Physician and Physician Scientist Volunteer and Strategic Planning Task Force
1996 - 1999	AHA, California/Western States Affiliate - President Elect (1996-1997);
1997 - 1999	AHA, Western States Affiliate - Board of Directors
1997 - 1998	AHA, Western States Affiliate - Budget and Finance Committee - Member Strategic Planning Task Force - Member
1997 - 1998	AHA, Western States Affiliate - President
1997 - 1998	AHA, California Affiliate - President; Nominating Committee
1998 - 2001	AHA, California Affiliate - Orange County Chapter, Board of Directors
2001	ACC Writing Committee, Expert Consensus Document on Alternative Medicine
2001 - 2003	AHA, Western States Affiliate, Executive Committee Board of Directors

EDITORIAL BOARDS:

1988 - 1996	Associate Editor, *Medicine and Science in Sports and Exercise*
1996 - 1998	Advisory Board, *The Guide*
1996 - Present	Editorial Board, *Circulation*
1994 - 1996	Editorial Board, *Sports & Medicine*
1997 - 1999	Editorial Board, *Journal of Applied Physiology*

AREAS OF INTEREST:

Cardiovascular neural reflex control mechanisms from somatic (skeletal muscle) and visceral regions including the heart and abdominal organs. Integrative, central neural regulation of the autonomic nervous system, with reference to cardiovascular reflex responses and including the reflex basis of acupuncture.

GRANT SUPPORT (Principal Investigator unless noted otherwise):

National Institutes of Health

1978 - 1981	RO1 - HL22669; Young Investigator Grant "Cardiovascular Effects from Visceral Afferents" (total direct costs $90,000)
1982 - 1986	PO1 - HL06296; "Response and Adaptation to Exercise," Program Project Grant Principal Investigator Jere Mitchell. Unit 7 Principal Investigator, "Cardiovascular Adaptation to Chronic Exercise, Central and Peripheral Mechanisms"
1983 - 1986	RO1 - HL30222; "Exercise Training effects on Regional Blood Flow" ($335,674)
1983 - 1986	NS20165; "Visceral and Somatic Autonomic Reflexes" ($450,037)
1985 - 1989	RO1 - HL17682; "Ischemic SCOR," SCOR Principal Investigator John Ross, Jr., Unit 8 Principal Investigator, "Mechanisms of Stimulation of Cardiac Afferent Fibers" (317,800)

1986 - 2002 RO1 - HL36527; "Mechanisms of Visceral and Somatic Reflexes" (1986-89 $380,301) (1989-1992)(1996-2002 $933,442)

1988 - 1995 RO1 - HL39114; "Exercise and Collateral Circulation" "Function and Growth of Coronary Collateral Vessels" ($1,025,475)

1992 - 1998 T32 - HL07682; "Training in Cardiovascular and Neurophysiology" ($1,218,795)

1994 - 1999 RO1 - HL51428; "Regulation of Cardiac Afferent Activity by O_2 Radicals" (returned 1995) ($972,309)

1995 - 2000 PO1 - HL52165; "Neurocontrol of Cardiovascular and Respiratory Systems," Principal Investigator, Unit 3, "Regulation of Cardiac Afferents by O_2. Radicals" and Administrative Core ($2,933,783)

2000 - 2003 RO1 - HL63313; "CNS Autonomic Regulation by Electroacupuncture, " ($750,000)

American Heart Association

1979 - 1980 AHA Texas Affiliate 79-; "Cardiovascular Effects from Visceral Afferents" ($6,000)

1980 - 1983 AHA National 80-784; "Mechanisms of Gastric Cardiovascular Reflexes" ($70,400)

1981 - 1986 AHA National 81-155; Established Investigatorship "Mechanisms of Visceral Cardiovascular Reflexes" ($150,000)

1983 - 1984 AHA California Affiliate 83-84; "Cardiovascular Reflexes from Contracting Muscle - Role of $[K^+]$" ($18,753)

1983 - 1985 AHA California Affiliate 83-S124; "Role of Bradykinin and Prostaglandins and the Exercise Pressor Reflex"

1983 - 1986 AHA National 83-758; "Mechanisms of Visceral Cardiovascular Reflexes" ($105,000)

1988 - 1991 AHA National 88-946; "Mechanisms of Anaphylatoxin-induced Cardiovascular Dysfunction" ($90,000)

Other Grant Support

1987 - 1988 Rosenfeld Heart Foundation ($10,000)

1991 - 1992 Medical Center Research Fund, Hibbard E. Williams Grant "Roles of Complement and Granulocytes in Myocardial Ischemia" ($50,000)

1993 - 1994 Rosenfeld Heart Foundation ($10,554)

1997 - 1998 Rosenfeld Heart Foundation ($10,000)

2000 - 2002 Charles A. Dana Foundation, "Neural Mechanism of the Effect of Acupuncture on Myocardial Ischemia" ($100,000)

2000 - 2002 Susan Samueli Center for Complementary and Alternative Medicine, "Effect of Electroacupuncture on Myocardial Ischemia" ($65,00)

2000 - 2002 Susan Samueli Center for Complementary and Alternative Medicine, "Central Neural Mechanisms of Electroacupuncture" ($75,000)

Patents

8/13/96 Patent #5,544,656: Method and Apparatus for Myocardial Wall Measurement

PUBLICATIONS

1. 1973 Zelis R, JC Longhurst, RJ Capone and G Lee: Peripheral circulatory control mechanisms in congestive heart failure. American Journal of Cardiology, 32:481-490.

2. 1974 Longhurst JC, RJ Capone, DT Mason and R Zelis: Comparison of blood flow measured by plethysmograph and flowmeter during steady state forearm exercise. Circulation, 49:535-540.

3. 1974 Zelis R, JC Longhurst, RJ Capone and DT Mason: A comparison of regional blood flow and oxygen utilization during dynamic forearm exercise in normal subjects and patients with congestive heart failure. Circulation, 30:137-143.

4. 1975 Longhurst JC, RJ Capone and R Zelis: Evaluation of skeletal muscle capillary basement membrane thickness in congestive heart failure. Chest 67:195-198.

5. 1976 Longhurst JC, W Gifford and R Zelis: Impaired forearm oxygen consumption during static exercise in patients with congestive heart failure. Circulation, 54:477-480.

6. 1979 Longhurst JC and WL Kraus: Exercise induced ST elevation in patients without myocardial infarction. Circulation, 60:616-629.

7. 1979 Longhurst JC and R Zelis: Cardiovascular responses to local hindlimb hypoxemia: relation to the exercise reflex. American Journal of Physiology, 237:H359-H365.

8. 1980 Longhurst JC, AR Kelly, WJ Gonyea and JH Mitchell: Echocardiographic left ventricular masses in distance runners and weight lifters. Journal of Applied Physiology, 48:154-162.

9. 1980 Longhurst JC, JH Mitchell and MB Moore: The spinal cord ventral root: an afferent pathway of the hindlimb pressor reflex in cats. Journal of Physiology (London), 301:467-476.

10. 1980 Longhurst JC, JH Ashton and GA Iwamoto: Cardiovascular reflexes resulting from capsaicin-stimulated gastric receptors in anesthetized dogs. Circulation Research, 46:780-788.

11. 1980 Longhurst JC, AR Kelly, WJ Gonyea and JH Mitchell: Cardiovascular responses to static exercise in distance runners and weight lifters. Journal of Applied Physiology, 49:676-683.

12. 1981 Aung-Din R, JH Mitchell and JC Longhurst: Reflex 'O-adrenergic coronary vasoconstriction during hindlimb static exercise in dogs. Circulation Research, 48:502-509.

13. 1981 Longhurst JC, HL Spilker and GA Ordway: Cardiovascular reflexes elicited by passive gastric distension in anesthetized cats. American Journal Physiology, 240:H539-H545.

14. 1981 Longhurst JC, AR Kelly, WJ Gonyea and JH Mitchell: Chronic training with static and dynamic exercise: cardiovascular adaptation and response to exercise. Circulation Research 48(Suppl I):I171-I178.

15. 1981 Longhurst JC, R Aung-Din and JH Mitchell: Static exercise in anesthetized dogs, a cause of reflex alpha-adrenergic coronary vasoconstriction. Basic Research in Cardiology, 76:530-535.

16. 1981 Schutte JE, JC Longhurst, FA Gaffney, BC Bastian and CG Blomqvist: Total plasma creatinine: an accurate measure of total striated muscle mass. Journal of Applied Physiology, 51:762-766.

17. 1982 Kaufman MP, GA Iwamoto, JC Longhurst and JH Mitchell: Effects of capsaicin and bradykinin on afferent fibers with endings in skeletal muscle. Circulation Research, 50:133-139.

18. 1982 Ashton J, GA Iwamoto, JC Longhurst and JH Mitchell: Reflex cardiovascular depression induced by capsaicin injection into the canine liver. American Journal of Physiology, 242:H955-H960.

19. 1982 Kaufman MP, GA Ordway, JC Longhurst and JH Mitchell: Reflex relaxation of tracheal smooth muscle by thin-fiber muscle afferents in dogs. American Journal of Physiology, 243:R383-R388.

20. 1982 Longhurst JC and J Ibarra: Sympathoadrenal mechanisms in hemodynamic responses to gastric distension in cats. American Journal of Physiology, 243:H748-H753.

21. 1982 Ordway GA, JH Mitchell and JC Longhurst: Bradykinin stimulates pancreatic afferents to activate the cardiovascular system. Transactions of the Association of American Physicians xcv:229-236.

22. 1983 Ordway GA and JC Longhurst: Cardiovascular reflexes arising from the gallbladder of the cat: Effects of capsaicin, bradykinin and distension. Circulation Research, 52:26-35.

23. 1983 Kaufman MP, JC Longhurst, RJ Rybicki, JH Wallach and JH Mitchell: Effects of static muscular contraction on impulse activity of groups III and IV afferents in cats. Journal of Applied Physiology, 55:105-112.

24. 1983 Rybicki KJ, JC Longhurst and MP Kaufman: Stimulation of splanchnic afferents reflexly relaxes tracheal smooth muscle in dogs. Journal of Applied Physiology, 55:427-432.

25. 1984 Ordway GA, JC Longhurst and JH Mitchell: Stimulation of pancreatic afferents reflexly activates the cardiovascular system in cats. American Journal of Physiology, 245:R820-R826.

26. 1984 Longhurst JC: Static contraction of hindlimb muscles in cats reflexly relaxes tracheal smooth muscle. Journal of Applied Physiology, 57:380-387.

27. 1984 Ordway GA, DL Floyd, JC Longhurst and JH Mitchell: Oxygen consumption and hemodynamic responses during graded treadmill exercise in the dog. Journal of Applied Physiology, 57:601-607.

28. 1984 Longhurst JC and J Ibarra: Reflex regional vascular responses during passive gastric distension in cats. American Journal of Physiology, 247:R257-R265.

29. 1984 Longhurst JC, CL Stebbins and GA Ordway: Chemically induced cardiovascular reflexes arising from the stomach of the cat. American Journal of Physiology, 247:H459-H466.

30. 1984 Iwamoto GA, TG Waldrop, JC Longhurst and GA Ordway: Localization of the cells of origin for primary afferent fibers supplying the gallbladder of the cat. Experimental Neurology, 84:709-714.

31. 1984 Longhurst JC, MP Kaufman, GA Ordway and TI Musch: Effects of bradykinin and capsaicin on endings of afferent fibers from abdominal visceral organs. American Journal of Physiology, 247:R552-R559.

32. 1984 Horton JW, JC Longhurst, D Coln, and JH Mitchell: Cardiovascular effects of haemorrhagic shock in spleen intact and in splenectomized dogs. Clinical Physiology, 4:533-548.

33. 1985 Stebbins CL, RC Smith, and JC Longhurst: Effect of prostaglandins on bradykinin-induced visceral-cardiac reflexes. American Journal of Physiology, 249:H155-H163.

34. 1985 Stebbins CL and JC Longhurst: Bradykinin-induced chemoreflexes from skeletal muscle: implications for the exercise reflex. Journal of Applied Physiology, 59:56-63.

35. 1985 Musch TI, GC Haidet, GA Ordway, JC Longhurst and JH Mitchell: Dynamic exercise training in foxhounds: I. Oxygen consumption and hemodynamic responses. Journal of Applied Physiology, 59:183-189.

36. 1985 Longhurst JC, S Motohara, JM Atkins and GA Ordway: Function of mature coronary collateral vessels and cardiac performance in the exercising dog. Journal of Applied Physiology, 59:392-400.

37. 1986 Lew WYW and JC Longhurst: Substance P, 5-Hydroxytryptamine, and bradykinin stimulate abdominal visceral afferents. American Journal of Physiology, 250:R465-R473.

38. 1986 Stebbins CL and JC Longhurst: Bradykinin in the reflex cardiovascular responses to static muscular contraction. Journal of Applied Physiology, 61:271-279.

39. 1986 Longhurst JC, TI Musch and GA Ordway: O_2 consumption during exercise in dogs-roles of splenic contraction and '0-adrenergic vasoconstriction. American Journal of Physiology, 251:H502-H509.

40. 1986 McKirnan MD, FC White, BD Guth, JC Longhurst and CM Bloor: Validation of a respiratory mask for measuring gas exchange in exercising swine. Journal of Applied Physiology, 61:1226-1229.

41. 1986 Martin SE and JC Longhurst: Evidence against high pressure, arterial baroreceptors in the abdominal viscera of cats. American Journal of Physiology, 251:H1283-H1291.

42. 1986 Stebbins CL, Y Maruoka and JC Longhurst: Prostaglandins contribute to cardiovascular reflexes evoked by static muscular contraction. Circulation Research, 59:645-654.

43. 1987 Musch TI, GC Haidet, GA Ordway, JC Longhurst and JH Mitchell: Training effects on the regional blood flow response to maximal exercise in foxhounds. Journal of Applied Physiology, 62:1724-1732.

44. 1987 O'Konski MS, FC White, JC Longhurst, DM Roth and CM Bloor: Ameroid constriction of the proximal left circumflex coronary artery in swine. American Journal of Cardiovascular Pathology, 1:69-77.

45. 1987 Longhurst JC, GA Ordway and LM Buja: Evaluation of coronary native and coronary collateral pressure gradients in the conscious dog. American Journal of Cardiovascular Pathology, 1:79-90.

46. 1987 Hammond HK, FC White, IO Buxton, P Saltzstein, LL Brunton and JC Longhurst: Increased myocardial ß-receptors and adrenergic responses in hyperthyroid pigs. American Journal of Physiology, 252:H283-H290.

47. 1987 Hammond HK, FC White, LL Brunton and JC Longhurst: Association of decreased myocardial ß-receptors and chronotropic response to isoproterenol and exercise in pigs following chronic dynamic exercise. Circulation Research, 60:720-726.

48. 1987 Longhurst JC and LE Dittman: Hypoxia, bradykinin, and prostaglandins stimulate ischemically sensitive visceral afferents. American Journal of Physiology, 253:H556-H567.

49. 1987 Maruoka Y, MD McKirnan, RE Engler and JC Longhurst: Functional significance of '0-adrenergic receptors in mature coronary collateral circulation of dogs. American Journal of Physiology, 253:H582-590.

50. 1987 Roth DM, Y Maruoka, J Rogers, FC White, JC Longhurst and CM Bloor: Development of the coronary collateral circulation in left circumflex ameroid-occluded swine myocardium. American Journal of Physiology, 253:H1279-1288.

51. 1987 Roth DM, FC White, O Mathieu-Costello, BD Guth, G Heusch, CM Bloor and JC Longhurst: Effects of left circumflex Ameroid constrictor placement on adrenergic innervation of myocardium. American Journal of Physiology, 253:H1425-H1434.

52. 1988 Ordway GA, KR Boheler and JC Longhurst: Stimulating intestinal afferents reflexly activates the cardiovascular system in cats. American Journal of Physiology, 254:H354-H360.

53. 1988 Martin SE, DE Chenoweth, RL Engler, DM Roth, and JC Longhurst: C5a decreases regional coronary blood flow and myocardial function in pigs: Implications for a granulocyte mechanism. Circulation Research, 63:483-491.

54. 1988 Stebbins CL, B Brown, D Levin and JC Longhurst: Reflex effect of skeletal muscle mechanoreceptor stimulation on the cardiovascular system. Journal of Applied Physiology, 65:1539-1547.

55. 1989 McKirnan MD, CL Stebbins and JC Longhurst: Effects of chronic dobutamine administration on the response to acute exercise in dogs. Clinical Physiology, 9:11-20.

56. 1989 Martin SE, DM Pilkington and JC Longhurst: Coronary vascular responses to chemical stimulation of abdominal visceral organs. American Journal of Physiology, 256:H735-H744.

57. 1989 Stebbins CL, and JC Longhurst: Potentiation of the exercise pressor reflex by muscle ischemia. Journal of Applied Physiology, 66:1046-1053.

58. 1989 Brtva RD, GA Iwamoto, and JC Longhurst: Distribution of cell bodies for primary afferent fibers from the stomach of the cat. Neuroscience Letters, 105:287-293.

59. 1990 Fletcher MP, G Stahl, JC Longhurst: *In vivo* and *in vitro* assessment of porcine neutrophil activation responses to chemoattractants: Flow cytometric evidence for the selective absence of formyl peptide receptors. Journal of Leukocyte Biology, 47:355-365.

60. 1990 Rotto DM, HD Schultz, JC Longhurst, MP Kaufman: Sensitization of group III muscle afferents to static contraction by arachidonic acid. Journal of Applied Physiology, 68:861-867.

61. 1990 Stahl GL, EA Amsterdam, JD Symons, JC Longhurst: Role of thromboxane A_2 in the cardiovascular response to intracoronary C5a. Circulation Research, 66:1103-1111.

62. 1990 Stebbins CL, OA Carretero, T Mindroiu, JC Longhurst: Bradykinin release from contracting skeletal muscle of the cat. Journal of Applied Physiology, 69:1225-1230.

63. 1990 Roth DM, FC White, ML Nichols, SL Dobbs, JC Longhurst, CM Bloor: Effect of long-term exercise on regional myocardial function and coronary collateral development after gradual coronary artery occlusion in pigs. Circulation, 82:1778-1789.

64. 1991 Munch PA, JC Longhurst: Contrasting effects of vasopressin and angiotensin II on rabbit aortic baroreceptors. American Journal of Physiology, 260:H811-H820.

65. 1991 Munch PA, JC Longhurst: Bradykinin increases myocardial contractility: Relation to the Gregg phenomenon. American Journal of Physiology, 260:R1095-R1103.

66. 1991 Stebbins CL, SJ Theodossy, JC Longhurst: Cardiovascular reflexes evoked by histamine stimulation of the stomach. American Journal of Physiology, 260:H1098-H1105.

67. 1991 Stahl GL, MP Fletcher, EA Amsterdam, JC Longhurst: Role of granulocytes and C5a in the myocardial response to zymosan-activated serum. American Journal of Physiology, 261:H29-H37.

68. 1991 Longhurst JC, DM Rotto, MP Kaufman, GL Stahl: Ischemically sensitive abdominal visceral afferents: Response to cyclooxygenase blockade. American Journal of Physiology, 261:H2075-H2081.

69. 1991 Symons JD, SJ Theodossy, JC Longhurst, CL Stebbins: Intramuscular accumulation of prostaglandins during static contraction of the cat triceps surae. Journal of Applied Physiology 71(5):1837-1842.

70. 1992 Stebbins CL, GL Stahl, SJ Theodossy, JC Longhurst: Modulation of bradykinin-induced gastric-cardiovascular reflexes by histamine. American Journal of Physiology, 262:R112-R119.

71. 1992 Stahl GL, JC Longhurst: Ischemically sensitive visceral afferents: Importance of H^+ derived from lactic acid and hypercapnia. American Journal of Physiology, 262:H748-H753.

72. 1992 Longhurst JC, RA Benham, SV Rendig: Increased concentration of leukotriene B_4 but not thromboxane B_2 in intestinal lymph of cats during brief ischemia. American Journal of Physiology, 262:H1482-H1485.

73. 1992 Stahl GL, B Halliwell, JC Longhurst: Hydrogen peroxide-induced cardiovascular reflexes: Role of hydroxyl radicals. Circulation Research, 71:295-302.

74. 1992 Pitsillides KF, JD Symons, JC Longhurst: Analysis of beat-to-beat cardiovascular hemodynamic variables obtained from long-term biotelemetry. Computer Methods and Programs in Biomedicine, 37:169-177.

75. 1992 Symons JD, KF Pitsillides, JC Longhurst: Chronic reduction of myocardial ischemia does not attenuate coronary collateral development in miniswine. Circulation, 86:660-671.

76. 1992 Pitsillides K, JD Symons, JC Longhurst: Biotelemetry of cardiovascular hemodynamic measurements in miniswine. IEEE Transactions on Biomedical Engineering, 39:982-985.

77. 1992 Amsterdam EA, SV Rendig, JC Longhurst: Contractile actions of C5a on isolated procine myocardium. American Journal of Physiology, 263:H740-H745.

78. 1993 Stahl GL, H-L Pan and JC Longhurst: Activation of ischemia- and reperfusion-sensitive abdominal visceral C fiber afferents: role of hydrogen peroxide and hydroxyl radicals. Circulation Research, 72:1266-1275.

79. 1993 Symons JD, JC Longhurst, CL Stebbins: Response of collateral-dependent myocardium to vasopressin release during prolonged intense exercise. American Journal of Physiology, 264:H1644-H1652.

80. 1993 Eisele PH, SM Griffey, MD Kittleson, EM Wilkens, JD Symons and JC Longhurst: Localized pericardial effusion and right sided heart tamponade: complications of cardiac surgery in a Hanford miniature pig. Laboratory Animal Science, 43:373-377.

81. 1993 Symons JD, E Firoozmand and JC Longhurst: Repeated dipyridamole administration enhances collateral-dependent flow and regional function during exercise: a role for adenosine. Circulation Research, 73:503-513.

82. 1993 Pan H-L, CL Stebbins, JC Longhurst: Bradykinin contributes to the exercise pressor reflex: mechanism of action. Journal of Applied Physiology, 75(5):2061-2068.

83. 1993 Fletcher MP, GL Stahl, JC Longhurst: C5a-induced myocardial ischemia: a role for CD18-dependent PMN localization and PMN-platelet interactions. American Journal of Physiology, 265:H1750-H1761.

84. 1993 Amsterdam EA, H-L Pan, SV Rendig, JD Symons, MP Fletcher and JC Longhurst: Limitation of myocardial infarct size in pigs with a dual lipoxygenase-cyclooxygenase blocker by inhibition of neutrophil activity without reduction of neutrophil migration. Journal of the American College of Cardiology, 22:1738-1744.

85. 1994 Rendig SV, H-L Pan and JC Longhurst: Brief mesenteric ischemia increases PGE_2, but not PGI_2, in intestinal lymph of cats. American Journal of Physiology, 266:R1692-R1696.

86. 1994 Pan H-L, GL Stahl, SV Rendig, OA Carretero, JC Longhurst: Endogenous BK stimulates ischemically sensitive abdominal visceral C fiber afferents through kinin B_2 receptors. American Journal of Physiology, 267(6):H2398-H2406.

87. 1994 Huang H-S and JC Longhurst: Cardiovascular reflexes during abdominal ischemia in cats. American Journal of Physiology, 267:R97-R106.

88. 1995 Pan H-L, AC Bonham and JC Longhurst: Role of spinal NK_1 receptors in cardiovascular responses to chemical stimulation of the gallbladder. American Journal of Physiology, 268:H526-H534.

89. 1995 Pitsillides, KV and JC Longhurst: An ultrasonic system for measurement of absolute myocardial thickness using a single transducer. American Journal of Physiology, 268:H1358-H1367.

90. 1995 Amsterdam, EA, GL Stahl, H-L Pan, SV Rendig, MP Fletcher, JC Longhurst: Limitation of reperfusion injury by a monoclonal antibody to C5a during myocardial infarction in pigs. American Journal of Physiology, 268:H448-H457.

91. 1995 Huang H-S, GL Stahl, JC Longhurst: Cardiac-cardiovascular reflexes induced by hydrogen peroxide in cats. American Journal of Physiology, 268:H2114-H2124.

92. 1995 Pan H-L, GL Stahl, JC Longhurst: Differential effect of 5- and 15-lipoxygenase products on ischemically sensitive abdominal visceral afferents. American Journal of Physiology, 269:H96-H105.

93. 1995 Pan H-L and JC Longhurst: Lack of a role of adenosine in activation of ischemically sensitive cardiac sympathetic afferents. American Journal of Physiology, 269:H106-H113.

94. 1995 Huang H-S, Pan, H-L, Stahl, GL, JC Longhurst: Ischemia- and reperfusion-sensitive cardiac sympathetic afferents: influence of H_2O_2 and hydroxyl radicals. American Journal of Physiology, 269:H888-H901

95. 1995 Pan H-L, ZB Zeisse, and JC Longhurst: Role of summation of afferent input in cardiovascular reflexes from splanchnic nerve stimulation. American Journal of Physiology, 270:H849-H856.

96. 1996 Schaefer S, RA Valente, LJ Laslett, JC Longhurst: Cardiac reflex effects of intracoronary bradykinin in humans. Journal of Investigative Medicine, 44:160-167.

97. 1996 Pan H-L and JC Longhurst: Ischaemia-sensitive sympathetic afferents innervating the gastrointestinal tract function as nociceptors in cats. Journal of Physiology, 492.3:841-850.

98. 1996 Fu L-W, H-L Pan, KF Pitsillides, JC Longhurst: Hypoxia does not directly stimulate ischemically sensitive abdominal visceral afferents during ischemia. American Journal of Physiology, 271:H261-H266.

99. 1996 O'Neill CA, L-W Fu, B Halliwell, and JC Longhurst: Hydroxyl radical production during myocardial ischemia and reperfusion in cats. American Journal of Physiology, 271:H660-H667.

100. 1996 O'Neill CA, CL Stebbins, S Bonigut, B Halliwell and JC Longhurst: Production of hydroxyl radicals in contracting skeletal muscle of cats. Journal of Applied Physiology, 81:1197-1206.

101. 1996 Bonigut S, CL Stebbins and JC Longhurst: Reactive oxygen species modify reflex cardiovascular responses to static contraction. Journal of Applied Physiology, 81:1207-1212.

102. 1997 Pan H-L, ZB Zeisse and JC Longhurst: Mechanical stimulation is not responsible for activation of gastrointestinal afferents during ischemia. American Journal of Physiology, 272:H99-H106

103. 1997 Rendig SV, PS Chahal, and JC Longhurst: Cardiovascular reflex responses to ischemia during occlusion of the celiac and/or superior mesenteric arteries. American Journal of Physiology, 272:H791-H796.

104. 1997 Pan H-L, ZB Zeisse, KF Pitsillides and JC Longhurst: Spatiotemporal aspects of sympathetic C-fiber afferent activity in pressor reflex during abdominal ischemia. American Journal of Physiology, 272:H1928-H1936.

105. 1997 Tjen-A-Looi S, A Bonham, and JC Longhurst: Interactions between sympathetic and vagal cardiac afferents in nucleus tractus solitarii. American Journal of Physiology, 272:H2843-H2851.

106. 1997 Symons JD, SV Rendig, L-W Fu, and JC Longhurst: Endothelin-1 limits increases in blood flow to native and collateral-dependent myocardium. American Journal of Physiology, 273:R41-R48.

107. 1997 Fu, L-W, CA O'Neill and JC Longhurst: Increased histamine and 5-HT in portal vein plasma and mesenteric lymph during brief ischemia and reperfusion. American Journal of Physiology, 273:H1135-H1141.

108. 1997 Fu, L-W, H-L Pan and JC Longhurst: Endogenous histamine stimulates ischemically sensitive abdominal visceral afferents through H_1 receptors. American Journal of Physiology, 273:H2726-H2737.

109. 1997 Chahal, P, SV Rendig and JC Longhurst: Bradykinin BK_2 receptor stimulation contributes to reflex cardiovascular responses during brief abdominal ischemia. American Journal of Physiology 274:H308-H313

110. 1998 Li, P, KF Pitsillides, SV Rendig, H-L Pan and JC Longhurst: Reversal of reflex-induced myocardial ischemia by median nerve stimulation: a feline model of electroacupuncture. Circulation 97:1186-1194.

111. 1998 Tjen-A-Looi SC, H-L Pan, JC Longhurst: Endogenous bradykinin activates ischaemically sensitive cardiac visceral afferents through kinin B_2 receptors in cats. Journal of Physiology, 510.2:633-641.

112. 1998 Fu L-W, JC Longhurst: Role of 5-HT_3 receptors in activation of abdominal sympathetic C fibre afferents during ischemia in cats. Journal of Physiology, 509.3:729-740.

113. 1998 Guo Z-L, L-W Fu, JD Symons, JC Longhurst: Signal transduction in activation of ischemically sensitive abdominal visceral afferents: role of protein kinase C. American Journal of Physiology, 275:H1024-H1031.

114. 1998 Fu L-W, JC Longhurst: Reflex pressor response to arterial phenylbiguanide; role of abdominal sympathetic visceral afferents. American Journal of Physiology, 276:H2025-H2035.

115. 1999 Guo, Z-L, JD Symons, JC Longhurst: Activation of visceral afferents by bradykinin and ischemia: independent roles of PKC and prostaglandins. American Journal of Physiology ,276:H1884-H1891.

116. 1999 Chao, DM, LL Shen, S Tjen-A-Looi, KF Pitsillides, P Li, JC Longhurst: Naloxone reverses inhibitory effect of electroacupuncture on sympathetic cardiovascular reflex responses. American Journal of Physiology, 276:H2127-H2134.

117. 1999 Chahal, PS, SV Rendig, JC Longhurst: Reflex cardiovascular response to brief abdominal visceral ischemia is mediated in part by prostaglandins. American Journal of Physiology. 277:H1793-H1798.

118. 1999 Pan, H-L, JC Eisenach, S-R Chenl, JC Longhurst: Role of protons in activation of cardiac sympathetic C-fiber afferents during ischemia. Journal of Physiology. 518.3:857-866.

119. 1999 Reddy, S, B Halliwell, AD Jones and JC Longhurst: The use of phenylalanine to detect hydroxyl radical production in vivo: a cautionary note. Free Radical Biology & Medicine, 27:1465.

120. 2000 Symons, JD, SV Rendig, CL Stebbins, JC Longhurst: Microvascular and myocardial contractile responses to ischemia: Influence of exercise training. Journal of Applied Physiology. 88:433-442.

121. 2000 Guo, Z-L, JC Longhurst: Role of cAMP in activation of ischemically sensitive abdominal visceral afferents. American Journal of Physiology. 278: H843-H852.

122. 2000 Fu, L-W, JC Longhurst: Interleukin-1 beta sensitizes abdominal visceral afferents of cats to ischemia and histamine. Journal of Physiology. 521.1:249-260.

123. 2000 Daniels, JW, CL Stebbins, JC Longhurst: Hemodynamic responses to static and dynamic muscle contractions at equivalent workloads. American Journal of Physiology (Regulatory Integrative and Comparative Physiology) 279: R1849-R1855.

124. 2001 Li, P, S Tjen-A-Looi, JC Longhurst: Rostral ventrolateral medullary opioid receptor subtypes in the inhibitory effect of electroacupuncture on reflex autonomic response in cats. Autonomic Neuroscience: Basic and Clinical 89: 38-47.

ARTICLES IN PRESS

1. 2001 Rendig SV, JD Symons, JC Longhurst, EA Amsterdam: Effects of red wine, alcohol and quercetin on coronary resistance and conductance arteries. Journal of Cardiovascular Pharmacology.

2. 2001 Tjen-A-Looi, SC, NT Phan, JC Longhurst: Nitric oxide modulates sympathoexcitatory cardiac-cardiovascular reflexes elicited by bradykinin. American Journal of Physiology.

3. 2001 Fu, L-W, JC Longhurst: Role of activated platelets in excitation of cardiac afferents during myocardial ischemia in cats. American Journal of Physiology.

INVITED ARTICLES, BOOK CHAPTERS

1. 1975 Zelis R, SH Nellis, JC Longhurst, G Lee, DT Mason: Abnormalities in the regional circulations accompanying congestive heart failure. Progress in Cardiovascular Disease, 18:181-199.

2. 1975 Zelis R, JC Longhurst: The circulation in congestive heart failure, p. 283-314. In R Zelis (Ed.) The Peripheral Circulations, Grune & Stratton, New York.

3. 1976 Zelis R, JC Longhurst, RJ Capone, G Lee, DT Mason: Peripheral circulatory control mechanisms in congestive heart failure, p. 129-141. In DT Mason (Ed.) Congestive Heart Failure: Mechanisms, Evaluation and Treatment, Dun-Donnelley Publ. Corp., Yorke Medical Books, New York.

4. 1977 Mason DT, R Zelis, JC Longhurst, G Lee: Cardiocirculatory responses to muscular exercise in congestive heart failure. Progress in Cardiovascular Diseases 19:475-489.

5. 1978 Zelis R, SF Flaim, S Nellis, JC Longhurst, R Moskowitz: Autonomic adjustments to congestive heart failure and their consequences. p. 237-247. In AP Fishman (Ed.) Heart Failure, Hemisphere Publ. Corp., Washington.

6. 1979 Longhurst JC, JH Mitchell: Reflex control of the circulation by afferents from skeletal muscle, p. 125-148. In AC Guyton and AW Cowley, Jr. (Eds.) Cardiovascular Physiology III; International Review of Physiology, University Park Press, Baltimore.

7. 1982 Longhurst JC: Arterial baroreceptors in health and disease. Cardiovascular Reviews & Reports 3:271-298.

8. 1983 Longhurst JC, JH Mitchell: Does endurance training benefit the cardiovascular system? Journal of Cardiovascular Medicine 8:227-236.

9. 1983 Longhurst JC, GA Ordway: Bradykinin-induced cardiovascular reflexes from the gallbladder in cats, p. 639-650. In H Fritz, N Back, G Dietze and GL Haberland (Eds.) Kinins III, Plenum Press, New York.

10. 1984 Longhurst JC: Cardiovascular reflexes of gastrointestinal origin, p. 165-178. In AP Shepherd and DN Granger (Eds.) The Physiology of the Intestinal Circulation, Raven Press, New York.

11. 1984 Mann DL, JC Longhurst: Does exercise play a role in the management of patients with chronic congestive heart failure? Journal of Cardiac Rehabilitation 4:305-308.

12. 1984 Longhurst JC: Cardiac receptors: their function in health and disease. Progress in Cardiovascular Diseases XXVII:201-222.

13. 1985 Longhurst JC, J Ross Jr: Extra cardiac and coronary vascular effects of digitalis. Journal of the American College of Cardiology 5:A99-A105.

14. 1985 Hammond HK, JC Longhurst: Adjunctive exercise testing in the diagnosis of coronary heart disease. Cardiovascular Reviews & Reports 6:477-488.

15. 1985 Longhurst JC: Arterial baroreceptors and cardiac receptors, their physiology and pathophysiology, p. 30-50. In JR Utley (Ed.) Perioperative Cardiac Dysfunction, Vol III, Williams & Wilkins, Baltimore.

16. 1988 Longhurst JC: Gastrointestinal reflexes. Gastroenterology 95:524-33.

17. 1990 Longhurst JC: Coronary arteriolar vasoconstriction in myocardial ischemia: reflexes, sympathetic nervous system, catecholamines. European Heart Journal, 11,(Supplement B), 43-52.

18. 1991 Longhurst JC: Reflex effects from abdominal visceral afferents, p. 551-577. In IH Zucker and JP Gillmore (Eds.) Reflex Control of the Circulation, Gilmore, Telford Press, W. Caldwell, New Jersey.

19. 1991 Longhurst JC: New perspectives on mitral valve prolapse. In MM Stevenson (Ed.) Modern Medicine, 59:5.

20. 1992 Longhurst JC, CL Stebbins: The isometric athlete. Cardiology Clinics of North America 10:281-294.

21. 1993 Longhurst JC, JD Symons: Function and development of coronary collateral circulation. In W Schaper (Ed), Collateral Circulation, Klewer, pp. 195-214.

22. 1995 Longhurst, JC: Chemosensitive abdominal visceral afferents. In GF Gebhart (Ed), Proceedings, Visceral Pain Symposium, IASP Press, pp.99-132.

23. 1995 Stebbins CL and JC Longhurst: Reflex activation of the cardiovascular system during muscular contraction. Chinese Journal of Physiological Sciences, pp.1-13.

24. 1997 Longhurst JC, CL Stebbins: The power athlete. Cardiology Clinics of North America. 15 (3):413-429.

25. 1998 Longhurst JC: Acupuncture's beneficial effects on the cardiovascular system. Preventive Cardiology, V I, No. IV, pp. 21-33.

26. 2001 Lin M, R Nahin, ME Gershwin, JC Longhurst K Wu: State of complementary & alternative medicine in cardiovascular, lung and blood research; Executive Summary of a Workshop. Circulation, 103:2038-2041.

27. 2001 Longhurst JC, SC Tjen-A-Looi, L-W Fu: Cardiac sympathetic afferent activation provoked by myocardial ischemia and reperfusion, p. 74-95. In MW Chapleau and F Abboud (Eds) Neuro-Cardiovascular Regulation; Annals of the New York Academy of Sciences, Vol 940, New York.

28. 2001 Longhurst JC: Alternative approaches to the medical management of angina pectoris: Acupuncture, electrical nerves stimulation, and spinal cord stimulation. Heart Disease: A Journal of Cardiovascular Medicine, Editorial, pp. 215-216.

INVITED ARTICLES, BOOK CHAPTERS IN PRESS

1. 2001 Longhurst JC: Central and peripheral neural mechanisms of acupuncture in myocardial ischemia. In Akio Sato (Ed.) Acupuncture: Is there a physiological basis?

LIMITED DISTRIBUTION PUBLICATIONS

1. 1974 Longhurst JC: The role of hypoxia, hypercapnia and acidosis in the canine hindlimb to cause reflex cardiovascular responses. Ph.D. Thesis, University of California, Davis, p. 1-120.

2. 1997 Longhurst JC: Alcohol: Poison or protector? Audio-Digest Internal Medicine Vol. 44.

ABSTRACTS

1. 1970 Longhurst JC, R Zelis, EA Amsterdam, JF Spann Jr, DT Mason: Depressed forearm oxygen consumption in congestive heart failure-physiologic adaptation in impaired metabolic vasodilation. Circulation 42:72.

2. 1970 Capone R, E Mansour, JC Longhurst, DT Mason, EA Amsterdam, R Zelis: Metabolic consequences of increased peripheral arteriolar stiffness in active skeletal muscle in clinical congestive heart failure. American Journal of Cardiology 26:628.

3. 1971 Longhurst JC, R Capone, E Mansour, DT Mason, EA Amsterdam, R Zelis: Metabolic response to increased vascular stiffness during forearm exercise in congestive heart failure. Clinical Research 19:116.

4. 1971 Longhurst JC, R Capone, DT Mason: Correlation of plethysmographic and electromagnetic forearm blood flows. Federation Proceedings 30:212.

5. 1971 Longhurst JC, R Capone, EA Amsterdam, DT Mason, R Zelis: The strain gauge plethysmograph - an accurate index of true mean forearm blood flow during exercise. Circulation 44:195.

6. 1972 Longhurst JC, RJ Capone, EA Amsterdam, DT Mason, R Zelis: A microcirculatory defect in congestive heart failure-etiology of depressed oxygen consumption during exercise. Clinical Research 20:176.

7. 1974 Longhurst JC, M Vaughn, R Zelis: The systemic cardiovascular response to regional muscle hypoxia: Implications regarding the afferent limb of the exercise reflex. Clinical Research 22:110A.

8. 1974 Longhurst JC, R Williams, M Vaughn, R Zelis: Evidence of favoring chemoreceptor activation as the etiology of reflex cardiovascular responses from skeletal muscles. Federation Proceedings 33:296.

9. 1974 Longhurst JC, W Gifford, L Vismara, DT Mason, R Zelis: Static exercise in the heart failure patient: Impaired metabolic vasodilation and reduced regional oxygen consumption. Clinical Research 22:147A.

10. 1974 Longhurst JC, W Barker, D Burton, W Gifford, R Zelis: Demonstration of anaerobiosis in heart failure during steady state forearm static exercise. Circulation 50:III-63.

11. 1974 Longhurst JC, D Burton, W Barker, W Gifford, DT Mason, R Zelis: Alteration of blood flow and oxygen consumption during regional norepinephrine infusion in the statically exercising human forearm. Circulation 50:III-118.

12. 1978 Longhurst JC, CG Blomqvist, M Dehn, W Kraus: Use of exercise induced ST segment elevation in anatomic localization of coronary artery disease. Clinical Research 26:6A.

13. 1978 Moore MB, JH Mitchell, JC Longhurst: Ventral root of the spinal cordan afferent pathway of the pressor response during sciatic nerve stimulation. Clinical Research 26:8A.

14. 1978 Longhurst JC, MB Moore, JH Mitchell: Role of the ventral root of the spinal cord in the pressor response during sciatic nerve stimulation. Federation Proceedings 37:834.

15. 1978 Longhurst JC, CG Blomqvist, M Dehn, W Kraus: The ability of exercise induced ST segment elevation to predict significant coronary artery disease. Clinical Research 26:249A.

16. 1978 Longhurst JC, JH Ashton: Canine cardiovascular reflexes resulting from capsaicin stimulated gastric receptors. Circulation 58:II-9.

17. 1978 Longhurst JC, AR Kelly, WJ Gonyea, JH Mitchell: Echocardio-graphically determined left ventricular masses in athletes. Clinical Research 26:VI-749A.

18. 1978 Longhurst JC, JH Ashton: Capsaicin induced cardiovascular reflexes originating from the canine stomach. Clinical Research 26:VI-749A.

19. 1979 Longhurst JC, AR Kelly, WJ Gonyea, JH Mitchell: Left ventricular mass in athletes. Medicine and Science in Sports 11:1082.

20. 1979 Aung-Din R, JC Longhurst, JH Mitchell: Myocardial blood flow and resistance changes during induced isometric exercise in dogs. Federation Proceedings 38:III-6l06.

21. 1979 Longhurst JC, AR Kelly, W Gonyea, JH Mitchell: Cardiovascular responses to static exercise in athletes. Clinical Research 27:II-439A.

22. 1979 Ashton J, GA Iwamoto, JC Longhurst, JH Mitchell: Capsaicin induced cardiovascular changes elicited from the inferior vena cava of the cat and dog. Physiologist 22:4.

23. 1979 Longhurst JC, HL Spilker: Cardiovascular reflexes from stomach distension in cats. Circulation 60:II-81.

24. 1980 Longhurst JC, J Ibarra: Efferent adrenergic mechanisms in the cardiovascular response to gastric distension in cats. Federation Proceedings 39:363.

25. 1980 Ashton JH, GA Iwamoto, JC Longhurst, JH Mitchell: Cardiovascular reflexes elicited by stimulation of receptors in the liver of the dog. Federation Proceedings 39:363.

26. 1980 Longhurst JC, HL Spilker: Reflex cardiovascular stimulation from stomach distension in cats. Proceedings of International Union of Physiology and Science 14:552.

27. 1980 Ashton JH, GA Iwamoto, JC Longhurst, JH Mitchell: Cardiovascular changes during bradykinin injection into the liver of the dog. Physiologist 23:43.

28. 1980 Longhurst JC, J Ibarra: Heterogeneity of regional vascular resistance responses during passive gastric distension in cats. Circulation 62:III-136.

29. 1980 Longhurst JC, JM Atkins, S Motohara: Heterogeneity of myocardial blood flow in exercising dogs with chronic coronary obstruction: Demonstration of a vascular steal? Clinical Research 28:810A.

30. 1980 Longhurst JC, LD Hillis, DB Twieg, BG Firth, JT Willerson, GC Curry: Regional myocardial blood flow during the cold pressor test in patients with and without coronary artery disease. Clinical Research 28:810A.

31. 1980 Ordway GA, MP Kaufman, JC Longhurst, JH Mitchell: Reflex effects of skeletal muscle afferent fibers on tracheal smooth muscle in dogs. Clinical Research 28:810A.

32. 1981 Kaufman MP, GA Iwamoto, JC Longhurst, JH Mitchell: Effects of capsaicin on skeletal muscle afferent fibers in dogs. Federation Proceedings 40:600.

33. 1981 Schutte JE, JC Longhurst, BC Bastian, FA Gaffney, CG Blomqvist: Total plasma creatinine as a measurement of striated muscle mass. American Journal of Physical Anthropology 54:276.

34. 1981 Ordway GA, JC Longhurst: Reflex cardiovascular responses to topical application of bradykinin on the gallbladder of cats. Physiologist 24:111.

35. 1981 Longhurst JC, GA Ordway: Cardiovascular responses to static exercise in conscious dogs–similarity to the response in humans. Physiologist 24:80.

36. 1982 Ordway GA, JC Longhurst: Cardiovascular reflexes elicited by stimulating gallbladder afferents in cats. Circulation 64:IV-289.

37. 1982 Longhurst JC, S Motohara, JM Atkins: Depressed pump performance caused by a global limitation of exercise hyperemia in dogs with chronic coronary collaterals. Clinical Research 29:854A.

38. 1982 Ordway GA, JC Longhurst, JH Mitchell: Reflex cardiovascular responses evoked by application of capsaicin to the pancreas of cats. Federation Proceedings 41:1604.

39. 1982 Iwamoto GA, JH Wallach, JC Longhurst: Topographical organization of gastric afferent neurons in the cat. Federation Proceedings 41:1519.

40. 1982 Kaufman MP, JC Longhurst, Wallach JH, Rybicki KJ, JH Mitchell: Effect of muscular contraction on thin fiber muscle afferents in cats. Federation Proceedings 41:1604.

41. 1982 Longhurst JC, GA Ordway: Bradykinin-induced cardiovascular reflexes from the stomach of cats. Federation Proceedings 41:1604.

42. 1982 Rybicki KJ, MP Kaufman, JH Wallach, JC Longhurst: The effects of stimulating abdominal visceral afferents on airway caliber. Federation Proceedings 41:1604.

43. 1982 Horton JW, JC Longhurst, JH Mitchell, CD Coln: Left ventricular contractile changes during hemorrhagic shock in dogs. Federation Proceedings 41:1606.

44. 1982 Ordway GA, JH Mitchell, JC Longhurst: Bradykinin stimulated pancreatic afferents to activate the cardiovascular system. Clinical Research 30:548.

45. 1982 Kaufman MP, JC Longhurst, KJ Rybicki, JH Mitchell: Responses of groups III and IV muscle afferents to different levels of tension development by the triceps surae. Physiologist 25:262.

46. 1983 Longhurst JC, GA Ordway: Alpha-adrenergic blockade depresses oxygen consumption during exercise in dogs with chronic circumflex occlusion. Journal of American College of Cardiology 1:624.

47. 1983 Longhurst JC, MP Kaufman, GA Ordway, TI Musch: Effects of capsaicin and bradykinin on splanchnic nerve afferent fibers from abdominal organs. Federation Proceedings 42:582.

48. 1983 Musch TI, GC Haidet, GA Ordway, JC Longhurst, JH Mitchell: Oxygen uptake and hemodynamic responses to maximal and submaximal exercise before and after dynamic exercise training in the foxhound. Federation Proceedings 41:735.

49. 1983 Horton J, JC Longhurst, JH Mitchell, D Coln: The effect of splenectomy on the cardiovascular response to static and dynamic exercise. Federation Proceedings 42:584.

50. 1983 Ordway GA, JC Longhurst, TI Musch, GC Haidet, JH Mitchell: Oxygen consumption and hemodynamic responses to dynamic exercise in dogs before and after splenectomy. Physiologist 26:A-16.

51. 1983 Musch TI, GC Haidet, GA Ordway, JC Longhurst, JH Mitchell: Pre- and post-training responses to maximal dynamic exercise during 'O-adrenergic blockade in the foxhound. Physiologist 26:A-16.

52. 1983 Stebbins CL, JC Longhurst: Role of bradykinin-induced gastric contraction in cardiovascular reflexes. Physiologist 26:A113.

53. 1983 Longhurst JC: Static muscle contraction in cats causes reflex tracheal relaxation. Physiologist 26:A-98.

54. 1983 Longhurst JC, GA Ordway: Cardiovascular reflexes from the cat's stomach: Response to bradykinin. Proceedings of the International Union of Physiology and Science XV:142.

55. 1983 Musch TI, GC Haidet, Longhurst JC, JH Mitchell: The effects of dynamic exercise training on the distribution of regional blood flow during maximal exercise in the foxhound. Circulation 68 (Suppl III):III-196.

56. 1983 Haidet GC, TI Musch, GA Ordway, JC Longhurst, JH Mitchell: Pre- and post-training regional blood flow responses to maximal dynamic exercise during 'O-adrenergic blockade in foxhounds. Circulation 68 (Suppl III):III-197.

57. 1984 Smith RC, CL Stebbins, JC Longhurst: The role of prostaglandins in cardiovascular reflexes caused by bradykinin stimulation of abdominal visceral organs. Clinical Research 32:13A.

58. 1984 Ordway GA, KR Boheler, JC Longhurst: Stimulating intestinal afferents reflexly activates the cardiovascular system in cats. Federation Proceedings 43:698.

59. 1984 Stebbins CL, RC Smith, JC Longhurst: Prostaglandins influence the cardiovascular responses evoked by bradykinin stimulation of abdominal viscera. Federation Proceedings 43:698.

60. 1984 Lew W, JC Longhurst, MP Kaufman, KR Boheler: Effects of serotonin and substance P on splanchnic nerve afferent fibers from abdominal organs in cats. Federation Proceedings 43:402.

61. 1984 Stebbins CL, AS Gerwer, JC Longhurst: Cardiovascular reflexes caused by bradykinin stimulation of afferent nerve fibers in the skinned hindlimb. Medicine and Science in Sports Exercise 16:131.

62. 1984 Stebbins CL, RC Smith, JC Longhurst: Prostaglandins affect the reflex cardiovascular response to bradykinin stimulation of skeletal muscle. Physiologist 27:224.

63. 1984 Longhurst JC, LE Dittman: Effects of ischemia and hypoxia on abdominal visceral afferents in cats. Physiologist 27:247.

64. 1984 McKirnan MD, CL Stebbins, HK Hammond, CM Bloor, JC Longhurst: Effects of chronic dobutamine administration of the response to exercise in dogs. Physiologist 27:266.

65. 1984 Hammond HK, FC White, MD McKirnan, B Guth, S Flynn, JC Longhurst: The thyrotoxic miniswine: Evidence of direct myocardial and peripheral effects. Physiologist 27:266.

66. 1985 Stebbins CL, K Munger, JC Longhurst: Bradykinin stimulation of skeletal muscle afferents contributes to the exercise reflex. Clinical Research 33:91A.

67. 1985 Longhurst JC, LE Dittman: Mechanisms of ischemia-induced stimulation of abdominal visceral afferents in cats. Clinical Research 33:13A.

68. 1985 O'Konski M, F White, Longhurst JC, D Roth, C Bloor: Aspirin augments circumflex collateral blood flow during exercise in the pig. Federation Proceedings 44:1561.

69. 1985 Roth D, F White, JC Longhurst, B Guth, C Bloor: Effects of ischemia and coronary artery instrumentation on adrenergic innervation of the swine heart. Federation Proceedings 44:621.

70. 1985 Stebbins CL, K Munger, JC Longhurst: The role of bradykinin in the reflex cardiovascular response to muscular contraction. Federation Proceedings 44:817.

71. 1985 Longhurst JC, L Dittman: Effects of hypoxia, bradykinin and prostaglandins on abdominal visceral afferents stimulated by ischemia. Clinical Research 33:206A.

72. 1985 Hammond HK, FC White, IL Buxton, P Saltzstein, LL Brunton , JC Longhurst: The hyperthyroid pig: myocardial ß-receptor changes are associated with physiological response in vivo. Circulation 72 (Suppl III): III-332.

73. 1985 Hammond HK, FC White, LL Brunton, JC Longhurst: Association of decreased numbers of myocardial ß-receptors with decreased chronotropic responsiveness to isoproterenol in physically trained conscious pigs. Circulation 72 (Suppl III):III-332.

74. 1986 Stebbins CL, Y Maruoka, JC Longhurst: Prostaglandins affect the reflex cardiovascular response to static muscle contraction. Federation Proceedings 45:644.

75. 1986 Martin SE, JC Longhurst: Evidence against high pressure baroreceptors in mesenteric circulation of cats. Federation Proceedings 45:746.

76. 1986 Roth D, Y Maruoka, J Rogers, F White, JC Longhurst, C Bloor: Development of the coronary collateral circulation in left circumflex occluded swine myocardium. Federation Proceedings 45:748.

77. 1986 Longhurst JC, LE Dittman: Hypoxia, bradykinin and prostaglandins stimulate ischemically sensitive abdominal visceral afferents. Proceedings of the International Union Physiology and Science XVI:40.

78. 1986 Stebbins CL, DL Levin, B Brown, JC Longhurst: Passive stretch of skeletal muscle induces cardiovascular reflexes. Proceedings of the International Union of Physiology and Science XVI-40.

79. 1986 Martin SE, DM Pilkington, JC Longhurst: Adrenergic control of coronary blood flow during pressor reflexes from the abdomen. Proceedings of the International Union of Physiology and Science XVI:484.

80. 1987 Martin SE, DE Chenoweth, RL Engler, DM Roth, JC Longhurst: Reduced coronary flow and myocardial function by complement: implication of a granulocyte mechanism. Federation Proceedings 46:640.

81. 1987 Munch PA, JC Longhurst: Bradykinin-induced increase in regional myocardial shortening: a potential mechanism of cardiac afferent nerve stimulation. Federation Proceedings 46:1246.

82. 1987 Stebbins CL, KA Milhoan, JC Longhurst: Histamine elicits cardiovascular reflexes from skeletal muscle. Federation Proceedings 46:1247.

83. 1988 Roth DM, FC White, ML Nichols, SL Dobbs, JC Longhurst, CM Bloor: Effect of exercise on coronary collateral development after gradual coronary artery occlusion in swine. FASEB J, 2:A947.

84. 1988 Longhurst JC, DM Rotto, MP Kaufman, SV Rendig: Ischemically sensitive visceral afferents: Importance of prostaglandins, hypercapnia and lactate. FASEB J, 2:A1325.

85. 1988 Rotto DM, JC Longhurst, MP Kaufman: Effects of indomethacin and arachidonic acid on the responses to static contraction of thin fiber muscle afferents. FASEB J, 2:Al325.

86. 1988 Roth DM, FC White, SL Dobbs, JC Longhurst, CM Bloor: Altered regional myocardial function at rest induced by chronic exercise after coronary artery occlusion. Circulation, 78 (Suppl II): II-19.

87. 1988 Amsterdam EA, JD Symons, GL Stahl, JC Longhurst: Evidence for myocardial ischemia associated with cardiac dysfunction induced by complement (C5a). FASEB J, 3:A688.

88. 1989 Munch PA, JC Longhurst: Effects of vasopressin and angiotensin II on rabbit aortic baroreceptors. FASEB J, 3:A1014.

89. 1989 Rotto DM, HD Schultz, JC Longhurst, MP Kaufman: Sensitization of group III afferents to static contraction by products of arachidonic acid metabolism. FASEB J, 3:A857.

90. 1989 Stahl GL, JD Symons, EA Amsterdam, JC Longhurst: Zymosan-activated serum and C5a induce similar alterations in coronary flow and myocardial function. Clinical Research, 37(2):522A.

91. 1989 Longhurst JC: Coronary arteriolar vasoconstriction in myocardial ischemia: Reflexes, sympathetic nervous system, catecholamines. Würzburg Symposium, Würzburg, Germany.

92. 1989 Longhurst JC, CL Stebbins: Bradykinin contributes to the reflex sympathetic cardiovascular response to exercise. IUPS Satellite Symposium, Göteborg, Sweden.

93. 1989 Longhurst JC, DM Rotto, MP Kaufman, SV Rendig: Ischemically sensitive abdominal visceral afferents: Importance of lactic acid, prostaglandins and hypercapnia. XXXI International Congress of Physiological Sciences, Helsinki, Finland.

94. 1989 Symons JD, JC Longhurst: Chronic 'O-adrenergic blockade does not attenuate coronary collateral flow in miniswine. Circulation, 80:II-310.

95. 1989 Stahl GL, EA Amsterdam, JD Symons, JC Longhurst: Complement (C5a)-induced myocardial ischemia: role of cyclooxygenase and lipoxygenase metabolites. Circulation, 80:II-547.

96. 1990 Stahl GL, EA Amsterdam, JC Longhurst: Myocardial effects of prolonged C5a infusion. FASEB J, 4:A945.

97. 1990 Pitsillides K, JD Symons, JC Longhurst: A miniature ultrasonic transit-time dimension system for measuring left ventricular wall motion. FASEB J, 4:693.

98. 1990 Symons JD, CL Stebbins, SJ Theodossy, JC Longhurst: PGE_2 and 6-Keto PGF_1 increase in skeletal muscle following 30 S of static hindlimb contraction. FASEB J, 4:A1072.

99. 1990 Amsterdam EA, SV Rendig, E Wilkins, JC Longhurst: Lack of contractile effect of C5a on isolated myocardium in the absence and presence of granulocytes and platelets. FASEB J, 4:A357.

100. 1991 Amsterdam EA, SV Rendig, JC Longhurst: Cardiac contractile actions of complement C5a on isolated porcine myocardium: Attenuation by H_1 receptor blockade. FASEB J, 5:A1436.

101. 1991 Stahl GL, JC Longhurst: Ischemically sensitive visceral afferents: Importance of H^+ derived from lactic acid and hypercapnia. FASEB J, 5:A1032.

102. 1991 Theodossy SJ, JC Longhurst, GL Stahl, CL Stebbins: Modulation of bradykinin-induced gastric-cardiovascular reflexes by histamine. FASEB J, 5:1394.

103. 1991 Fletcher MP, GL Stahl, JC Longhurst: Anti-CD18 MoAB IB4 inhibits in vitro and in vivo porcine neutrophil (PMN) activation: Evidence for a role for CD18-mediated PMN trapping in C5a-induced myocardial ischemia. FASEB J, 5:A1354.

104. 1991 Stahl GL, MP Fletcher, JC Longhurst: Role of granulocyte adherence in C5a-induced cardiac dysfunction. Clinical Research, 39:89A.

105. 1991 Symons JD, SJ Theodossy, JC Longhurst, CL Stebbins: Effect of low-intensity contraction and arterial occlusion on intramuscular prostanoid concentration. FASEB J, 5:A764.

106. 1991 Benham RA, SV Rendig, JC Longhurst: Leukotriene (LT) B_4 but not thromboxane (TX) B_2 is increased in mesenteric lymph fluid during ischemia in cats. Clinical Research, 39:232A.

107. 1991 Stahl GL, JD Symons, EA Amsterdam, JC Longhurst: Zymosan-activated serum and C5a induce similar alterations in coronary flow and myocardial function. Clinical Research, 37:522A.

108. 1991 Symons JD, JC Longhurst, CL Stebbins: Vasopressin release during exercise does not attenuate collateral-dependent flow or function in ameroid-occluded miniswine. The Physiologist 34:226.

109. 1991 Stahl GL, JC Longhurst: Ischemically sensitive abdominal visceral afferents respond to lactic acid but not sodium lactate or respiratory acidosis. Circulation 84:II-101.

110. 1992 Stahl GL, B Halliwell, JC Longhurst: Hydrogen peroxide-induced cardiovascular reflexes of abdominal origin: Role of hydroxyl radicals. AHA Scientific Conference on Function and Structural Mechanisms of Vascular Control, Snowbird, Utah, Feburary 1992.

111. 1992 Amsterdam EA, SV Rendig, HL Pan, JD Symons, JC Longhurst: Reduction of myocardial infarct size in pigs with BW-755c by attenuation of neutrophil function without alteration of neutrophil migration. FASEB J, 6:A1248.

112. 1992 Firoozmand E, JD Symons, JC Longhurst: Repeated dipyridamole (D) infusion does not alter transmural myocardial capillary density in miniswine. FASEB J, 6:A2037.

113. 1992 Symons JD, E Firoozmand, JC Longhurst: Repeated dipyridamole (D) infusion enhance collateral-dependent flow and regional function during exercise: Evidence supporting the mechanical hypothesis. FASEB J, 6:A1506.

114. 1992 Kappagoda CT, MP Kaufman, JC Longhurst: Effect of lymphatic obstruction (LO) from the lung on activity of pulmonary C fibers in rabbits. FASEB J, 6:A1757.

115. 1992 Stahl GL, B Halliwell, JC Longhurst: Hydrogen peroxide-induced cardiovascular reflexes of abdominal origin: Role of hydroxyl radicals. FASEB J, 6:A1525.

116. 1992 Pan HL, CL Stebbins, JC Longhurst: Bradykinin-induced reflex cardiovascular responses to static muscular contraction. Circulation, 86:I-367.

117. 1992 Rendig SV, HL Pan, JC Longhurst: Brief mesenteric ischemia increases PGE_2, but not PGI_2, in intestinal lymph of cats. Circulation, 86:I-483.

118. 1992 Longhurst JC, GL Stahl: Role of reactive oxygen species in activation of abdominal visceral afferents during ischemia and reperfusion. Circulation, 86:I-638.

119. 1993 Amsterdam EA, GL Stahl, HL Pan, SV Rendig, M Fletcher, JC Longhurst: Limitation of infarct size by a monoclonal antibody to C5a in pigs. FASEB J, 7:A92.

120. 1993 Stahl GL, JC Longhurst: Complement-induced myocardial ischemia. Cooperative role of platelets and neutrophils. FASEB J 7:A594.

121. 1993 Huang H, JC Longhurst: Cardiovascular reflexes during abdominal ischemia in cats. FASEB J 7:A854.

122. 1993 Pan H-L, GL Stahl, JC Longhurst: Bradykinin activates ischemically-sensitive abdominal visceral C fiber afferents: roles of kinin-B_2 receptor activation and prostaglandins. Circulation 88:I-472.

123. 1994 Pan H-L, AC Bonham, JC Longhurst: Role of substance P as sensory neurotransmitter in the cardiovascular responses to chemical stimulation of the gallbladder. FASEB J, 8:A850.

124. 1994 Longhurst JC, H-L Pan, GL Stahl: Effect of lipoxygenase products on ischemically sensitive abdominal visceral C fibers. FASEB J, 8:A850.

125. 1994 Pitsillides KF, JC Longhurst: Ultrasonic single crystal myocardial dimension tracking measurement system. FASEB J, 8:A570.

126. 1994 Rendig S, S Gray, JC Longhurst, E Amsterdam: Differential effects of complement C5a on porcine coronary conductance and resistance arteries. FASEB J, 8:A857.

127. 1994 Longhurst JC, H Huang, GL Stahl: Cardiac-cardiovascular reflexes induced by hydrogen peroxide in cats. Clinical Research 42:255A.

128. 1994 Pan H-L, JC Longhurst: Gastrointestinal ischemia is encoded by nociceptive-specific sympathetic C fiber afferent neurons. Circulation, 90: I-2584.

129. 1994 Longhurst JC, H-L Pan: Hydrogen peroxide and hydroxyl radical (_OH) activate ischemia- or reperfusion- sensitive cardiac sympathetic afferents in cats. Circulation, 90: I-2585.

130. 1995 O'Neil CA, LW Fu, JC Longhurst: Ischemia time dependency of hydroxyl radical production during reperfusion. FASEB J, 9:A591.

131. 1995 Pan H-L, ZB Zeisse, KF Pitsillides, JC Longhurst: Neural encoding mechanism of the cardiovascular reflex by sympathetic C-fiber afferents during abdominal ischemia. FASEB J, 9:A45.

132. 1995 Longhurst JC, H-L Pan: Lack of a role of adenosine in activation of ischemically sensitive cardiac sympathetic afferents. FASEB J, 9:A621.

133. 1995 Zeisse ZB, H-L Pan, JC Longhurst: Cardiovascular responses to electrical stimulation of abdominal sympathetic visceral afferents. FASEB J, 9:A45.

134. 1995 Schaefer S, R Valente, L Laslett, JC Longhurst: Bradykinin does not mediate anginal pain during myocardial ischemia. J. Invest. Med., 43:320A.

135. 1995 Bonigut S., CL Stebbins, JC Longhurst: Reactive oxygen species influence the exercise pressor response. Circulation, 92:I-58

136. 1995 Fu L-W., H-L Pan, KF Pitsillides, JC Longhurst: Tissue hypoxia does not directly activate visceral sympathetic afferents during abdominal ischemia. Circulation, 92:I-58.

137. 1995 Pan H-L., ZB Zeisse, L-X Zhang, JC Longhurst: Response characteristics of abdominal vagal afferents during ischemia. Soc. Neurosci. Abstr., 21:1157.

138. 1996 Symons JD, SV Rendig, L-W Fu, JC Longhurst: Endothelin $(ET)_A$ receptor blockade increases regional myocardial blood flow in left-circumflex occluded swine. FASEB J,10:A324.

139. 1996 Pan H-L, ZB Zeisse and JC Longhurst: Mechanical stimulation is not responsible for activation of gastrointestinal afferents during ischemia. FASEB J, 10:A61.

140. 1996 Fu L-W, H-L Pan and JC Longhurst: Endogenous histamine stimulates ischemically sensitive abdominal visceral afferents through H_1 receptors. FASEB J, 10:A63.

141. 1996 Tjen-A-Looi S, A Bonham and JC Longhurst: Interactions between sympathetic and vagal cardiac afferents in the nucleus tractus solitarius. FASEB J, 10:A338.

142. 1996 O'Neill CA, L-W Fu and JC Longhurst: Concentration of histamine is increased in instestinal lymph and portal venous plasma during ischemia and reperfusion. FASEB J, 10:A594.

143. 1996 Tjen-A-Looi S, H-L Pan, and JC Longhurst: Endogenous bradykinin activates ischemically sensitive cardiac sympathetic afferents through kinin B_2-receptor. Soc. Neurosci. Abstr., 22(3), 708.8.

144. 1997 Longhurst JC, S Tjen-A-Looi, H-L Pan: Bradykinin (BK) and prostaglandins (PG) in activation of cardiac sympathetic afferents during myocardial ischemia. J. Auton. N. Syst., 65:155; 1997.

145. 1997 Chahal P, SV Rendig and JC Longhurst: Bradykinin (BK_2) receptor stimulation contributes to the reflex cardiovascular response during brief abdominal visceral ischemia. FASEB J, 11:A50.

146. 1997 Pitsillides KF, SV Rendig and JC Longhurst: Measurement of absolute myocardial function in small animals with a 20 MHz single-transducer sonomicrometer. FASEB J, 11:A70.

147. 1998 Li P, S Tjen-A-Looi, RR Holt, SV Rendig, KF Pitsillides and JC Longhurst: Opioid receptor subtypes of rostral ventrolateral medulla (RVLM) in inhibition of gallbladder pressor response by electroacupuncture (EA). FASEB J, 12:372.

148. 1998 Tjen-A-Looi, S and JC Longhurst: Role of xanthine oxidase (XO) in activation of cardiac afferents during myocardial ischemia. FASEB J, 12:3995.

149. 1998 Yu Q, LW Fu, JC Longhurst: Interleukin-1Ø, but not tumor necrosis factor-Ø, increases in intestinal lymph during brief mesenteric ischemia. FASEB J, 12:200.

150. 1998 Fu LW, JC Longhurst: Intra-arterial phenylbiguanide causes reflex pressor responses through activation of ischemically sensitive abdominal sympathetic afferents. FASEB J, 12:172

151. 1998 Guo ZL, JD Symons, LW Fu, JC Longhurst: Protein kinase C contributes to bradykinin-mediated activation of ischemically sensitive abdominal visceral afferents. FASEB J, 12:3998.

152. 1998 Chahal P, SV Rendig, R Hanna, JC Longhurst: Serotonin ($5HT_3$-) and histamine (H_1-) receptors are involved in the reflex pressor responses to brief abdominal visceral ischemia. FASEB J, 12:3999.

153. 1998 Symons JD, SV Rendig, J Benton, CL Stebbins, JC Longhurst: Does exercise training lessen ischemia-induced dysfunction of resistance vessels in stunned myocardium? FASEB J, 12:6449.

154. 1998 Rendig SV, JD Symons, JC Longhurst, EA Amsterdam: Quercetin, a biologically active flavonoid, relaxes isolated rabbit coronary arteries. FASEB J, 12:2356.

155. 1998 Chao DM, YX Cao, KF Pitsillides, JC Longhurst, P Li: Role of opioids in the inhibitory effect of acupuncture on the gallbladder pressor response. FASEB J, 12:4000.

156. 1998 Guo Z-L, JD Symons, JC Longhurst: Bradykinin-mediated activation of ischemically sensitive abdominal visceral afferents: contributions from the phosphoinositide and cyclooxygenase pathways. Soc. Neurosci. Abstr., 24:871.

157. 1998 Fu L-W, JC Longhurst: Activation of ischemically sensitive cardiac afferents by serotonin through 5-HT_3 receptors. Soc. Neurosci. Abstr., 24:1622.

158. 1998 Longhurst JC, S Tjen-A-Looi: Both neutrophils (PMNs) and xanthine oxidase (XO) contribute to activation of cardiac sympathetic afferents in cats. Clinical Autonomic Research, 8:283.

159. 1998 Symons JD, SV Rendig, CL Stebbins, JC Longhurst: Receptor-mediated coronary artery constriction after ischemia: influence of exercise training. Medicine and Science in Sports and Exercise, 31(5):xx.

160. 1999 Guo Z-L, JC Longhurst: Cyclic AMP contributes to prostaglandin-mediated activation of abdominal visceral afferents during ischemia. FASEB J, 13:A447

161. 1999 Phan, NT, S Tjen-A-Looi, JC Longhurst: Nitric oxide modulates arterial blood pressure during the reflex pressor response to chemical stimulation of sympathetic cardiac afferents. FASEB J. 13:A444.

162. 1999 Gee, B, S Tjen-A-Looi, JC Longhurst: Role of non-NMDA spinal receptors in abdominal ischemia pressor reflex. FASEB J. 13:A385.

163. 1999 Fu, L-W, JC Longhurst: Activated platelets ischemically sensitive cardiac afferents. Circulation, 100:I-132.

164. 1999 Tjen-A-Looi, S, JC Longhurst: Rostral VLM opoid receptor subtypes in electroacupuncture inhibition of reflex autonomic response. Clinical Autonomic Research, 9:247.

165. 1999 Daniel, JW, CL Stebbins, JC Longhurst: Comparision of hemodynamic response to static and dynamic contractions at equivalent tension-time indexes. FASEB J, 13:A449.

166. 2000 Tjen-A-Looi, S, P Li, JC Longhurst: Electroacupuncture (EA) inhibits neuronal discharge in rostral ventral lateral medulla (rVLM) induced by splanchnic stimulation. Neuroscience, 26:228.

167. 2000 Rowshan, K, S Tjen-A-Looi, P Li, JC Longhurst: Electroacupuncture (EA) inhibits the pressor response induced by gastric mechanical stimulation in rats. Neuroscience, 26:125.

168. 2000 Guo, Z-L, H-C Lai, JC Longhurst: C-fos expression in the medulla in response to stimulation of cardiac sympathetic afferents. Neuroscience, 26:228.

169. 2000 Rendig, SV, JD Symons, JC Longhurst, EA Amsterdam: Effects of red wine, alcohol and the red wine flavonoid, quercetin, on isolated coronary resistance and conductance arteries. Journal of the American College of Cardiology, 35:245A.

170. 2000 Longhurst, JC: Mechanisms of cardiac sympathetic afferent activation during myocardial ischemia and reperfusion. The Physiologist, 43:258.

171. 2000 Fu, L-W, JC Longhurst: Activated platelets stimulate cardiac afferents through a 5-HT receptor mechanism. FASEB J. 14:A377.

173. 2000 Fu, L-W, JC Longhurst: Role of activated platelets in excitation of cardiac afferents during ischemia. The Physiologist, 43:261.

174. 2000 Tjen-A-Looi, S, Fu, L-W, JC Longhurst: Role of neutrophils in the activation of cardiac visceral afferents during myocardial ischemia in cat. The Physiologist, 43:262.

ABSTRACTS IN PRESS

1. 2001 Crisostomo, MM, SC Tjen-A-Looi, JC Longhurst: Nociceptin and classical opioids in the rostral ventral lateral medulla (rVLM) reduce electroacupuncture (EA) inhibition on gastric distention-induced pressor reflex in rats. Neuroscience.

2. 2001 Longhurst, JC: Central and peripheral neural mechanisms of acupuncture in myocardial ischemia. IUPS Satellite Symposium, Auckland, New Zealand.

3. 2001 Longhurst, JC: Central and peripheral neural mechanisms of acupuncture in myocardial ischemia. XXXIV International Congress of Physiological Sciences, Christchurch, New Zealand.